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INTERINDUSTRY AGREEMENTS FACILITATE SAYANO-SHUSHENSKAYA GES CONSTRUCTION

Moscow PRAVDA in Russian 15 Sep 82 p 2

[Article by G. Petrov: "Cooperation in the Sayans"]

[Text] Let us recall how eight years ago representatives of 28 Leningrad collectives, which were filling orders for the Sayano-Shushenskaya GES, signed an agreement regarding scientific and technical cooperation and socialist competition directed at accelerating work and improving its quality. The initiative immediately met with active support from workers in Krasnoyarsk Kray, the builders of the hydraulic system. They then took on their own counter-obligations. Thus arose the Sayanskoye cooperation which has already reaped considerable benefits. In the 11th Five-Year Plan, the joint obligations of the Leningrad and Siberian workers have marked the evolution of this hydroelectric plant. These obligations are dictated by an overall concern--to complete the construction and to develop the design output of this Yenisey giant.

In order to find a comprehensive solution to the scientific and technical problems relating to a large-scale installation of national economic importance, realize innovative ideas quickly and obtain the maximum effect, the initiators of "Agreement-28" intensified interindustry contacts. Scientific-research, developmental, design and industrial programs have been coordinated based on national interests, and not local or departmental. "Technical progress and a solid scientific foundation, a minimum of material expenditures, high efficiency, reliability, durability and a high degree of aesthetics"--such is the motto of competition. Its results can be seen in economical and beautiful structures, buildings and equipment, 15 types of the best hydroelectric, electric and mechanical equipment in the world and the saving of 15 million rubles, 13,000 tons of metal and 50,000 tons of cement. To a considerable degree, the innovative designs have determined the future development of the Soviet hydroelectric power industry.

"Our progress has been aided by the fact that at the outset we found successful forms for organizing the interaction of various collectives," noted the director of the Lengidroproyekt Institute, Yu. Grigor'yev. "For example, the coordinating councils created in Leningrad and Krasnoyarsk assist in solving many complex scientific-technical and industrial questions and in shortening the path from creative research to introduction. These social organs have an active influence on the disposition and fulfillment of construction orders and the delivery of finished equipment.

Multilateral agreements and comprehensive plans for the solution of scientific and technical problems; consolidated networks in which provisions have been made for the strict continuity and sequencing of operations until the start-up of the first unit; competition among associated collectives according to the "work relay" principle--all of this today is being extensively applied at other large-scale installations of national econmic importance: on the Baykal-Amur railroad line, at the Leningrad AES, at the Ust-Ilimsk lumber processing complex, etc. The initiative of the Leningrad workers, approved by the CPSU Central Committee, has become a breakthrough for the entire country.

Meanwhile, cooperation in the Sayan region is not standing still. More than 60 Leningrad enterprises and organizations are already taking part in "Agreement-28." The Siberians have expanded the circle of partners. A total of about 200 collectives have been drawn into the orbit of cooperation.

There is an important feature: the Sayan cooperation is distinguished by the diversity of contacts between the Leningrad and the Siberian workers. Lately, cultural ties have been actively expanding. Two musical festivals entitled "Sayan Lights" have been conducted in the Krasnoyarsk Kray on the initiative of a Leningrad organization from the USSR Composers Union. Dozens of artistic and journalistic works have been created by writers and journalists on assignment from the magazine ZVEZDA, which has established its own permanent station in the Sayan mountains. The numerous works of painters and illustrators reflect the nature and manner of the builders and the stages of construction. An agreement has been concluded regarding creative cooperation between workers in culture and the arts in this city on the Neva and the workers at the GES.

This is how "Agreement-28," at first basically intended to solve problems of scientific and technical progress, gradually acquired a complex nature, reflecting the diversity of vital ties. Along with the variety of specific tasks, all of the participants have a common goal: to contribute to the successful construction of a powerful hydroelectric power station which will become a shining memorial to the realization of Lenin's dream of the country's electrification.

According to plan, by the end of the current five-year plan we must commission 8 of 10 hydraulic units at the GES. The Siberian and Leningrad workers, however, wish to do more. Written into their obligations for the five-year plan was the provision that they bring the hydroelectric station up to full power and commission the Maynskaya GES--a necessary component of the hydroelectric complex that will allow the Yenisey giant to operate with its greatest output. This remarkable patriotic initiative testifies to the great potentials and the efficiency of cooperation. Indeed, the counterplan has been corroborated by economic calculations and a thorough analysis of the reserves. One of these is the widening competition among the teams and the consolidation of ties among the collectives from various sectors.

In 1975, Hero of Socialist Labor Vladimir Chicherov, foreman of a crew of welder-assemblers from the Leningrad Metals Plant association, and Valeriy Poznyakov, chief of the Komsomol Youth Collective of Carpenters and Concrete Workers imeni Yuriy Gagarin from KrasnoyarskGESstroy, signed an agreement regarding their common obligations. Contacts were established which enriched the lives of the workers on both crews and increased their responsibility for the success of the project. It is true, however, that the competition did not get underway without problems.

The crew of V. Chicherov took part in making the foundation belts for the hydraulic units, the foundations for the servomotors and the spiral cases. The crew of V. Poznyakov poured concrete into these assemblies. How can one determine and compare the results of their work? Indeed, they are very different operations with literally nothing in common. They did, however, find a solution: qualitative indicators were used as the basis--increased labor productivity, conservation, improved production methods, improved skills of the workers as well as their participation in social life. Other crews began to work according to this same principle, and later they tried to select "pairs" connected by the production chain.

Owing to the large-scale dimensions of the hydraulic generators and the turbines at the Sayano-Shushenskaya GES, the method of installation had to be greatly altered. A number of operations that had previously been carried out at the plants were transferred to the construction site. At the same time, it became more complicated to assemble the one-of-a-kind machines, replete with their innovative components. All of this required closer ties between the crews making the equipment and those installing it.

The agreement between Valentina Antonova's crew of welder-assemblers from the Leningrad Metals Plant association and Vyacheslav Demidenko's team of installation workers from the Spetsgidroenergomontazh trust has come to be a new step in this direction. The collectives of Vitaliy Grigor'yev and Vladimir Zhil'tsov will soon join with them. They will make the turbine assemblies, and others will assemble them at the station. The competition has become objective.

Dozens of plant, installation and construction teams have already concluded agreements and assumed their obligations. A work-team council has been formed. The results of the competition are being tallied semiannually, alternating between the banks of the Neva and the Yenisey. Lively discussions are underway regarding the current state of affairs. Frequently the workers themselves argue that priority has to be given to the competing teams. Such is the moral aspect of the Sayan cooperation and work-team competition.

What, then, are the practical results? The crew of V. Antonova completed its task ahead of schedule, finishing all work on the embedded fittings and stator assemblies at the Sayano-Shushenskaya GES. Meanwhile, V. Demidenko's team of installation workers mounted the structural elements of the next unit made by their partners. The collective of V. Zhil'tsov accepted the turbine guide-vane unit from the team of V. Grigor'yev and his comrades and assembled it successfully. The crew of V. Lazarev from the Elektrosila association made special devices for a Siberian collective headed by V. Dudchenko which was in competition with them. These devices considerably facilitated the installation of the hydraulic generator. As a result of all these efforts, the hydraulic unit began providing commercial current ahead of schedule and received a rating of "excellent."

The national economic and educative significance of interindustry competition among the work teams and its efficiency are such that it is advisable that we maintain it not only for the entire period of construction of the Sayano-Shushenskaya GES and its companion--the Maynskaya hydraulic system--but also expand it wherever possible. Such opportunities exist. In the opinion of the participants, the chain of associates can and should include more links than it now does: beginning with those who deliver prefabricated turbine assemblies--workers from the Izhorsk Plant association--and ending with the operators. Taking little part in the work-team competition are collectives from the Elektrosila and Elektroapparat associations.

On the initiative of V. Poznyakov, a construction agreement was concluded between his crew and designers from Lengidroproyekt. Its aim is to construct the Maynskaya hydraulic system at a rapid pace with the least expenditures.

"Our agreement is mutually profitable," said Sergey Salov, chief of the design group at the institute. "We will design the hydroelectric station building, and Poznyakov's team will put it up. The collectives depend on one another. The designers are incorporating modern, economical designs in the documentation. A great degree of skill will be required on the part of the builders in order to materialize them. The builders are interested in the timely receipt of high-quality blueprints and in technical assistance."

The coordinating council has estimated that 14 collectives can take part in this competition. This is not a bad prospect! Additionally, there are other avenues of competition which have yet to be discovered.

An enormous amount of work remains to be done on the banks of the Neva and the Yenisey. We must make full use of the abundant experience and tradition of the Sayan cooperation in order to complete this work successfully. There are, by the way, many who follow the example of these participants, yet there sometimes are those who have accepted the idea but have a poor understanding of the practical forms and methods of organizing the work. Party and trade-union organs as well as managerial personnel must make a deeper study of this experience of constructive cooperation.

9512
CSO: 1822/3

FIRST REACTOR AT SMOLENSKAYA AES BROUGHT TO CRITICAL MASS

Moscow TRUD in Russian 14 Sep 82 p 1

[Article by V. Kapel'kin, TRUD correspondent at the Smolenskaya AES construction site: "First Reactor Placed into Service"]

[Text] At 7:20 pm on 9 September, V. Zubakha, shift chief at the Smolenskaya AES, tried not to show his excitement as he wrote in his log book: "The first fuel-rod assembly has been loaded into the fuel channel of reactor number 37-41."

The line he wrote was even, unobtrusive and looked like all the rest. If, however, the entry had been made with the same emotional intensity he was feeling, it would have stood out in red letters a yard tall. The collective of the AES breathed life into the first reactor of the future giant of the power industry.

Let us follow the regular route taken by the AES personnel. First is the control post. The watchman carefully studies your document and photograph. Then comes the change into white underclothing and suit--a jacket and pants. All the official wear--from cap to socks--is 100 percent sanitary cotton. The shoes are tidy cloth boots possessing the same properties. Everyone is dressed in white, like surgeons. The only difference is the pen-type dosimeter (radiation counter) worn by visitors or the small transparent packet with its black photocassette, attached to a button--the mark of the permanent worker.

The route was familiar, but at the same time it was new. There was no trace of the gloomy grayness of concrete. On the walls was a covering done in pleasant tones. On the floors and stairways was a one-piece yellow plastic carpet. The workers had already nicknamed the very stylish corridor (anodized aluminum, oaken doors) "the general's."

We were at the 35-meter mark. Here they stood--the steel gates into the reactor room. My companion joked, "Be careful not to slam the doors." Why, how could you slam these? The doors were massive hulks, probably no less than a ton in weight. It would take an appreciable amount of effort to budge them.

The main arena for the action taking place was on the shiny stainless steel floor, on what looked like a five-kopeck piece with the projecting heads of hundreds of process tubes.

The physical start-up of the reactor is not associated with the generation of electric power. There is practically no heat given off, either. One of the aims of the physical start-up is the determination of the reactor's critical charge. The values, of course, are calculated. Specialists maintain, however, that each of the nine RBMK-1000 channel-type reactors commissioned in this country has its own characteristic traits and that it is important that these traits be established in order to insure the reactor's successful operation in the future. Moreover, due to the fact that our reactor is a landmark achievement, it being the tenth in the series, it is charged with a new type of fuel, more enriched than that used previously.

In general, the physical start-up can be likened to the lowering of a vessel into the water when it is capable of floating, but before its construction is complete and before it is ready to go out on the open sea.

The shift crew of V. Cheprasov arrived at the critical mass.

The notation in the log read: "September tenth, 10:50 am. A self-sustaining chain reaction has been recorded!" The experienced power engineer--Viktor Gavrilovich had started up two units at the Chernobyl'skaya AES--could not hold back his emotions, and they burst out on the paper in the form of a punctuation mark, uncommon for documents. However, it was not only fitting to put in the exclamation mark, it was fitting that the operators threw their white caps into the air.

A meeting took place in the central room near the reactor. At this meeting they talked without using previously prepared notes. They spoke from the heart, and everyone about smiled. They all smiled, even those who were falling down from exhaustion and those who had the reputation of being "sourpusses."

Everything, however, was in order. The shift crew came on duty when the 19 fuel assemblies rested in the reactor's channels. The instruments and the calculations showed that critical mass was just about to be achieved. They installed the twentieth fuel assembly and moved the manual control rods to the limit. However, the fuel needed to initiate a self-sustaining reaction was still lacking by a very little amount.

They began to prepare the twenty-first assembly, the lower portion of which was a bundle of 36 "pencils" containing its own fuel--uranium dioxide. Presiding solemnly over the operation was the rigger, Yu. Karlinskiy. He attached the assembly to the hook of the crane. The crane pulled the assembly out of the cooling pond for the fuel, located alongside the "five-kopeck piece." The operators pulled the polyethylene jacket from the assembly. One would have liked to walk up to it and stroke the glossy black surface of the "pencils." Only Karlinskiy, however, has the right to touch them, for he is wearing special mittens. A person is in no danger. It is simply that the "pencils" are perfectly clean, and one could leave an oily spot on them.

Karlinskiy gave the crane operator the sign to lower the assembly at the lowest speed. The assembly began to drop into the reactor channel.

The attempt was no good. The start-up computer, generally referred to as "the counter," sputtered with alarm signals that merged into a continuous warble.

This is where A. Ignatenko, the "siur" (an abbreviation for the senior reactor-control engineer), was working. This 26-year-old specialist had already been present at the physical start-up of the BN-600 reactor at the Beloyarskya AES. was working. In the capacity of "monitoring physicist" he had started the reactors at the Chernobyl'skaya station. Now he was the "siur" at the Smolenskaya station--an important figure on the shift crew. His career, incidentally, is no rarity--the rapidly developing nuclear power industry is an excellent field of activity that provides intelligent young men and women with abundant opportunities to prove themselves and to work their way up.

G. Kopchinskiy, director of the station and deputy chairman of the State Acceptance Commission, noted that the physical experiments are proceeding strictly according to the program. This testifies to the high quality of installation and adjustment work done on the reactor and the high quality of the other systems and equipment in the first unit. The fine training of the personnel was in evidence. Strictly speaking, this is the way it should be. This is what the State Commission as a whole, including N. Kozlov, the country's chief nuclear safety inspector, had expected to see. The commission unanimously accepted the decision regarding the physical start-up.

Together with B. Reva, chief of the construction site and, at the same time, chairman of the staff responsible for organizing competition in honor of the 60th anniversary of the USSR, we leafed through the documents recording the results of the work done during these hectic weeks. Many teams of construction workers and riggers are exceeding daily quotas by a factor of 1.5 to 2.

Workers throughout the entire project responded when the team of carpenters and concrete pourers led by Lenin Komsomol Prize laureat V. Fedorkov of construction administration No. 1 addressed them with an appeal "to make each day before the start-up a day of 'shock work' and to work with the highest degree of labor productivity." The crew set an example--they were successful every shift they worked.

On 4 September, a group of expert trouble-shooters--O. Aleksandrov, A. Sorokin, V. Maslyuk and others, 15 in all--submitted the reactor-shielding control system for overall testing. They took ten days to do this, instead of the very stingy two weeks alloted by the program.

"You must admit that on the threshold of the start-up the project is proceeding as smoothly as it ever has," noted B. Reva.

On 11 September, the powerful pumps on the shore of the cooling "sea" started howling and the waters of the Desna rushed into the station's open intake conduit. Our builders were thrilled, together with their Polish colleagues from the Energopol' power construction association. They completed the work beautifully, on schedule, and with a high degree of quality.

The project had reached the finish line. The thousands of workers in the collective labored at the same accelerated pace, striving quickly to place the peaceful atom, enriched with man's constructive energy, into the country's service.

9512
CSO: 1822/3

INTERNATIONAL CONFERENCE ON CENTRALIZED HEATING MEETS IN KIEV

Moscow PRAVDA in Russian 7 Sep 82 p 3

[Interview with Ye. Borisov, chairman of the Soviet Organizational Committee and first deputy minister of the USSR Ministry of Power and Electrification, at the 7 September Fifth International Conference on Centralized Heating in Kiev, by unnamed PRAVDA correspondent: "The Cities' Heat"; text of initial question not given]

[Text] Today in Kiev opens the Fifth International Conference on Centralized Heating. Taking part in the work of the conference are scientists and experts from 25 countries. At the request of our PRAVDA correspondent, Ye. Borisov, chairman of the Soviet Organizational Committee and first deputy minister of the USSR Ministry of Power and Electrification speaks about the types of problems that will be discussed here:

"Lenin's State Commission for the Electrification of Russia, which was adopted in the first years of the Soviet State's formation and in which a course was taken toward centralizing the development of the power industry, opened wide-ranging possibilities for the combined production of heat and electric power. Such a method of production was referred to as centralized heating. This method makes it possible to efficiently utilize our country's fuel resources. It also possesses considerable social, economic and ecological advantages.

In our country there are now 800 cities that utilize the heat from large-scale heat and electric power stations. More than 100 million Soviet people enjoy the services of this centralized system. TETs's provide for about one-third of the country's electric power needs and for more than 40 percent of the heating requirements. Their combined production makes it possible to conserve up to 30 million tons of conventional fuel annually.

In recent years we have mastered the mass-production of large-scale turbines with unit capacities from 100 to 250,000 kW. They can be run under various operating conditions. In the summer, for example, when hot water is used in the home for domestic needs only, these turbines are used primarily to generate electric power. In the cold season, however, they generate both heat and electricity. By the end of the present five-year plan, the total capacity of such units will rise to approximately 90 billion kW.

Today, as is well known, nuclear fuel is being added to the traditional types of fuel. The resolutions of the 26th CPSU Congress provide for the creation of a number of nuclear heat and electric power stations [ATETs's]. The Bilibino ATETs with its four separate million-kW power units has been in operation now for several years. A high-capacity nuclear power plant will be built in Odessa, and nuclear heating plants will be constructed in other cities. One such nuclear heating plant is capable of providing heat to a city with a population of 400,000 people, conserving about 800,000 tons of conventional fuel annually.

Much has been done to utilize solar power for heating. In Simferopol, for example, we have already commissioned a boiler plant which uses solar-powered water heaters. In the Crimean settlement of Lenino, construction has already been started on solar electric power stations with capacities of 5,000 kW.

There is still another direction--the construction of geothermal stations. The experiments necessary to do this are now being carried out. In Dagestan, individual areas of Makhachkala are being heated with thermal energy from underground water.

The Soviet Union is rendering considerable technical and economic assistance to foreign countries in designing and delivering equipment and in constructing and installing centralized heating facilities. Large-scale TETs's, for example, have been erected for metallurgical plants in Bhilai and Bokaro, India and for the Esfahan Plant in Iran. Similar TETs's are being built with the help of the USSR in Nigeria and Pakistan. A number of TETs's and boiler plants have been built using Soviet designs and equipment in Bulgaria, North Korea, Mongolia, Turkey, Cuba, Ethiopia and other countries.

On the other hand, scientists and experts from the USSR are making active use of new and progressive discoveries made in other countries. They are taking active participation in many measures of an international nature that touch upon the problems of centralized heating. We can hope that the Fifth International Conference will enable us to solve more quickly the problems in the field of centralized heating that are crucial for various countries."

9512
CSO: 1822/3

NEW PRODUCTS ELIMINATE MICA SHORTAGE, INCREASE PRODUCTIVITY

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 19 Sep 82 p 2

[Article by Professor V. Krikorov, doctor of technical sciences and director of the Moscow Power Engineering Institute: "The Keys to the Mica Problem"]

[Text] Man learned to use mica in ancient times. This natural material, which possesses the ability to be cleaved into the thinnest of layers, is irreplaceable even today. Mica does not age with time and endures temperatures of up to 700°. This is exactly the reason that it is possible to produce highly reliable electrical insulation from mica. The thinner the insulation, the better the performance characteristics of electrical machinery and, naturally, the lighter its weight.

It is understandable that this valuable product is more and more in demand with each passing year. The volume of production of mica insulation must be increased by not less than 20 to 25 percent in each five-year plan. Only with the provision that the production of mica be increased can we insure the given pace of production of electrical machinery and equipment and, consequently, the pace of our country's electrification.

Mica insulation is manufactured in industrial enterprises that process nonmetallic ores. These enterprises produce plates 20 to 30 microns thick, referred to as cleaved mica. Its production is extremely labor-intensive and does not lend itself well to efficient mechanization. Even to this day, the processing of mica requires a great many hands. In order to obtain a single plate, it is necessary to have a crystal of mica no smaller than a matchbox. Smaller crystals will not do. The smaller crystals are scrapped, together with the other shavings. Thus, only about 10 percent of the mica that is mined is utilized. It is a fact that the reserves of mica in the earth are far from limitless. Moreover, the mining of mica becomes more complicated with each passing year.

Life itself has presented us with a crucial problem: how do we achieve the maximum utilization of mica?

In the search for the answer to this important economic problem, it was necessary to coordinate the efforts of electrical engineers, chemists and specialists from the building-materials industry. Their creative collaboration met with success. Testifying to the high level at which the work was carried out are 20 inventions realized during the course of their collective search. New mica-based dielectric

materials--micanite and micaplast--have been created and are being extensively applied. The waste that had previously been scrapped was the very raw material that was suitable for their production. Thus, the utilization factor of this valuable product immediately increased five-fold.

The new materials differ from those manufactured from expensive cleaved mica in that their production is more profitable--the experts were finally successful in transferring the production of these new materials to fully mechanized production lines. Labor productivity in enterprises in the mica industry increased by a factor of more than 40. Thus, with practically the same volume of mined raw material, the shortage of electrical-grade mica was eliminated, and more than 21,000 workers were freed.

Micanite and micaplast insulation are of better quality than products made from cleaved mica. Utilizing this insulation, electrical equipment builders created new, improved designs for machines that noticeably increased their reliability, output and other performance characteristics. At the same time, the consumption of mica insulation and active metals was reduced by 20 to 25 percent.

The mechanized production-line manufacture of these new dielectric materials has been organized at enterprises of the USSR Ministry of the Electrical Equipment Industry and the USSR Ministry of the Construction Materials Industry. Their output increases constantly with each passing year.

These new materials have made a solid contribution to industry. The savings due to their utilization in the economy have already exceeded 400 million rubles.

A complicated and important economic problem has been solved. Those who participated in the development, mass-production and extensive industrial application of a broad range of mica-paper dielectric materials are worthy of being entered into competition for the USSR State Prize. These new materials have made possible the creation of powerful turbogenerators and hydrogenerators, high-efficiency traction motors for railroad transport and electric motors with enhanced capacity and reliability for the nuclear power industry, coal mining, petroleum production and other sectors of the economy.

9512
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NON-NUCLEAR POWER

'KOMUNISTI' ROUND TABLE EXAMINES SMALL-SCALE HYDROPOWER

[Editorial Report] Tbilisi KOMUNISTI in Georgian on 10 August 1982 devotes all of page 3 to a 5000-word round table concerning all-out utilization of Georgia's small- and medium-scale hydropower resources, conducted by the newspaper's energy consultant Tengiz Bokhua and participated in by Giorgi Chogovadze, director of the Scientific-Research Institute for Power Engineering and Hydrotechnical Structures; his deputy for science Nodar Kereselidze; Shio Napetvaridze, director of the Scientific-Research Institute for Construction Mechanics and Seismostability; Nikoloz Motsonelidze, head of the Polytechnic Institute's Department of Hydrotechnical Structures; and other distinguished specialists. The idea for the round table grew out of Shevardnadze's specific remarks on the subject at the Sixth GCP CC Plenum, a passage from which is quoted. Figures are given concerning Georgia's water power resources, only 12 to 15 percent of which are now utilized, and there is extensive discussion of the types of construction most suitable for particular locations and terrain, also essential means of coping with such problems as heavy silting. There is one brief reference to the necessity of taking account of Georgia's unique climate and topography, culture, way of life, and social and national characteristics. In view of the seasonal nature of Georgia's major hydropower resources, there is brief reference as well to the need to resolve the question of building a major base republic power plant of 2 to 4 million kw capacity.

The advantages of small-scale hydropower development in terms of relative economy, ease, and short construction timetable are discussed in some detail, and there is some mention of less exacting specifications imposed on smaller-scale structures.

Some emphasis is placed on the fact that Georgia did have a thriving tradition of small-scale, local hydropower development starting in the 1920's, but that it was erroneously allowed to dwindle in the 1960's as big consolidated plants took over, and numerous small dams and power facilities were allowed to fall into ruin. Many of these could be restored quickly now, especially with today's advanced construction techniques and the use of helicopters for easier access, and one valuable by-product would be to encourage resettlement of depopulated localities.

One problem that is mentioned, in regard to the use of "series produced" small-scale power plant components, is the lack of a suitable technical base.

CSO: 1813/747

BRIEFS

NEW TRANSMISSION LINE--A 500-kV transmission line will connect the Stavropol'skaya GRES with the Inguri GES, located on the other side of the Central Caucasus Range. Installation of the towers began yesterday in a little-accesible region along the line--across glaciers in the Makharskiy pass. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 10 Sep 82 p 2] 9512

NEW ROTARY LOADER--The production of a new type of rotary loader has been mastered at the Donetsk Machine Building Plant. The first model was delivered to the Ekibastuz GRES-1. This unusual unit will serve as a unique link between the coal stores and the station's main building. The loader's task is to provide a continuous supply of coal to the boiler units' fireboxes with the help of a rotor and conveyer system. The machine's productivity exceeds 3,500 m^3 of coal per hour. With its commissioning, power engineers will be able to free dozens of bulldozers, thereby considerably reducing the idletime of rail cars being unloaded. [Text] [Moscow TRUD in Russian 6 Aug 82 p 1] 9512

HOUSING FOR GRES BUILDERS--Salekhard, Yamalo-Nenetsk Autonomous Oblast--With the creation of comfortable housing for the builders, construction has begun on a thermal electric power station which will be erected near the Arctic Circle on the left bank of the river Pur. It is difficult to select a comfortable location for living quarters in the swampy tundra. Nevertheless, the searchers managed to find a site where the spring floods would not threaten the settlement. Meanwhile, the builders are living in good-quality mobile shelters. It is warm in the shelters, even when the outside temperature is -50° C. Soon, however, two-story dormitories will accept the new settlers. The new GRES will be serviced with gas from the Urengoy pipeline and will have an output of 2.5 million kW. The station's electric power will aid the development of a petroleum and gas complex in Western Siberia. [Text] [Moscow TRUD in Russian 6 Aug 82 p 1] 9512

NONDELIVERY OF EQUIPMENT--The Sumy Machine Building Production Association imeni Frunze was one of the enterprises recently named in a press item, "It Depends upon the Equipment Suppliers" (weekly No. 32), which were delaying the fulfillment of orders from the builders of the Zaporozhskaya AES. The association managers considered the criticism to be unfounded and took offense. In a reply to the editors, deputy chief director Yu. P. Nazarenko wrote, "We have been observing delivery contracts up until the present time in strict accordance with the deadlines established by the schedule and the plan." Having received this letter, the editorial staff directed additional inquiries to the USSR Ministry of Power and Electrification.

Is it possible that in this case the Sumy association was indeed unjustly included in the ranks of tardy suppliers? No. Let us take the fact that Comrade Nazarenko ignored. In the second quarter of this year, the association was given the task of delivering the main PT 37-50-75 feed pump. The deadline was not met. A new deadline was set--they promised to ship the pump in August. Again, this promise was broken. This unit, which was so badly needed at the AES, had not arrived as late as the last ten-day period of September. The reason is one of two: either the management of the Sumy association does not know the true state of affairs with this important order, or else they are attempting to present reality in a false light. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 38, Sep 82 p 2] 9512

ELECTRIFICATION OF VIRGIN TRACTS--The electrification of virgin tracts has been completed on the right bank of the Amudarya in Turkmenistan. A 34-km transmission line brought the current to the last developed tract--the Gaurdakskiy. All the villages and pumping stations for the automated canals have been switched over to a centralized power supply. The electrification of virgin lands in the republic is being conducted in the region of the Karakumy canal, to the north of Karakumy and on the right bank of the Amudarya. It has been decided that over 3,500 km of transmission lines be run into newly developed regions during the current five-year period. The electrification of villages is closely associated with the rapid growth of the electric power industry in Turkmenistan. [Text] [Ashkhabad KOMSOMOLETS TURKMENISTANA in Russian 31 Aug 82 p 2] 9512

NOVO-AZERBAYDZHANSKAYA GRES--Mingechaur--It is a solemn time for the builders and installation workers at the Novo-Azerbaydzhanskaya GRES--preparations are underway for the operation of the boiler for the second power unit which was installed almost five months ahead of plan. The collective of this station, together with enterprises of Azenergonaladka and the Mingechaur installation administration of the Kavelektromontazh trust, is conducting water and chemical purification of the boiler. Several operations of this process have been carried out successfully. "The remaining measures necessary to bring the complex boiler up to operational status," said the station's chief engineer, I. Ashurov, "will be conducted within the time limits established by the builders' and operators' common socialist obligations, assumed in honor of the 60th anniversary of the USSR. In many respects, the start-up of the second power unit depends upon this." We will recall that the collective of this international construction project gave its word that it would insure the commissioning of the next power unit three months ahead of the plan. The day of the start-up is approaching. During the weeks of anniversary shifts, all construction sections here are working vigorously. [Text] [Baku VYSHKA in Russian 22 Sep 82 p 2] 9512

ZEYSKAYA GES TRANSMISSION LINE--Tynda, Amur Oblast--Power will arrive in Tynda along an electric power transmission line leading to the Zeyskaya GES earlier than planned. It is being constructed by a collective of the 106th mechanized column of the Vostoksibelektroset'stroy trust. Specialists from the column have managed to accelerate the construction of the almost 2-km span of line across the Zeyskoye reservoir. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Sep 82 p 1] 9512

HIGH-VOLTAGE PROTECTIVE EQUIPMENT--Lvov--As has already been reported in the press, a 750-kV transmission line has been connected to the Donbass-Western Ukraine-Albertirsha (Hungary) international electric power transmission line of the same voltage which begins at the Chernobyl'skaya AES. In the near future, similar power

bridges will extend from two more AES's under construction--the Khmel'nitskaya and the Southern Ukraine. In connection with this, the question of carrying out repair operations on trunk lines of this nature acquires particular importance. "Before, if it was necessary to replace, for example, a spacer or an insulator," said F. Kacheruk, director of the L'vovenergo power system enterprise in Lvov, "the power line had to be disconnected. One day of downtime brought a loss of 50,000 to 60,000 rubles. Now, after an experiment which we conducted (incidentally, the first in our country on a line of such power), it will no longer be necessary to effect a shutdown. The experiment was conducted in the area of the Zapadnayaukrainskaya substation. The experiment proved to be feasible thanks to special equipment created in Hungary. Using this equipment, as well as clothing--cotton suits and gloves sewn through with the thinnest of metallic threads--that reliably protect a person from the effects of high voltage, the most experienced riggers from Lvov and Donetsk carried out repair operations while the line continued to work. [Text] [Moscow IZVESTIYA in Russian 17 Sep 82 p 3] 9512

POWER EQUIPMENT DELIVERIES--Novosibirsk--The collective of the Sibelektrotyazhmash plant are preparing to greet the 60th anniversary of the formation of the USSR with the completion ahead of schedule of large orders from hydraulic power plant builders throughout the union republics. They have begun to ship assemblies from the last generator of the Kurpsayskaya GES in the Kirghiz SSR. The first generator for the Shamkhorskaya GES in Azerbaijan is on its way to the client. A generator stator for the Inguri-Perepadnaya GES is being sent to the Georgian SSR. Installation workers at the Andizhanskaya GES in Uzbekistan will recieve two hydraulic generators by the end of the year. [Text] [Moscow IZVESTIYA in Russian 10 Sep 82 p 1] 9512

TRANSMISSION LINE--A 35-km electric power transmission line from Karavan to Ala-Buka in the Kirghiz SSR has been placed into operation. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 33, Aug 82 p 3] 9512

TRANSMISSION LINE ACROSS GLACIERS--The Stavropol'skaya GRES and the InguriGES located on the other side of Central Caucasus Range will be connected by a 500-kV transmission line. Workers have begun installing towers along the right-of-way in a little-accessible region--across the glaciers of the Makharskiy pass. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 33, Sep 82 p 3] 9512

AES WASTE WATER EXAMINED--The Ignalinskaya AES is a pioneer of the nuclear power industry in Lithuania and is a central construction project for the republic. The role of "cooling plant" for this station has been assigned to Lake Drukshay. Will it be able to cope with this task? How does one integrate the interests of power engineers and ecologists? These and many other questions were put to scientists from the Institute of Physicotechnical Problems of Power Engineering of the Lithuanian Academy of Sciences. The theoretical models did not guarantee the accuracy of the answers. Workers at the institute decided to utilize the cooling reservoir of another electric power station--the Litovskaya GRES--as a testing ground for natural observations. In order to do this, they built a platform on pontoons on which they placed an automatic system for collecting data regarding the thermal state and mixing of water in the reservoir. Studies conducted with the platform's help showed, in particular, that the warm water released into the "cooling plant" behaves like a film of oil. It distributes itself along the surface of the reservoir and does not mix with respect to depth. These data were then used to refine the design of the AES. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Sep 82 p 4] 9512

CSO: 1822/3

LITHUANIAN PIPELINE CONSTRUCTION DISCUSSED

Minsk SOVETSKAYA BELORUSSIYA in Russian 2 Sep 82 p 2

[Article by L. Kuz'mitskiy: "Trunkline Travels to the West"]

[Excerpts] Tens of millions of cubic meters of natural gas travel daily from the warehouses of the extreme north on the two already existing lines of the main gas pipeline. The consumers are our republic, Lithuania, as well as a considerable part for export. The task has been set of considerably increasing in the future the specific weight of natural gas fuel balance in the republic. The start-up of the third line of the main gas artery Torzhok-Minsk-Ivatsevichi which is planned for this year will help to solve it. In addition, the already existing compressor stations in Orsha, Krupkyy, Minsk, Nesvizh and Ibatsevichyy will increase their output by one-third. The length of the route is 850 m, including 460 km on the territory of Belorussia.

Today the subdivisions of 7 union organizations are working on this important start-up construction site. The chief of them are the construction-installation trust "Glavtruboprovodstroy" and "Ukrglavneftegazstroy."

Information is reaching the headquarters of construction daily about the course of work on the start-up sections of the route. It indicates that all the line objects are being constructed ahead of the normal schedule of construction. The entire route is divided into 13 sections which permits work comprehensively, and concentration at the start-up facilities of human resources and equipment.

The builders these days are showing samples of selfless labor. Take for example the section of the 202nd kilometer located in the region of Nesvizh. Here the collectives of the trust "Ukrpruboprovodstroy" and "Ukrzapadneftegazstroy" are working. The head of the headquarters of construction, Hero of Socialist Labor, L. F. Radzinskiy comments on the course of work: "The gas pipeline is passing through an intersected locality. The swampy sections in some places are over 30 percent. The powerful equipment cannot pass here, therefore we have to construct log roads. In addition, it is necessary to place on the body of the 1,200-millimeter pipes 34,000 weighting reinforced concrete weights. It is difficult. In the example of the builders making the route Urengoy-Uzhgorod, in the honor of the 60th Anniversary of the USSR we have decided to complete our section ahead of schedule. We have already completed 95 kilometers of the route and the cleaning overflow devices on the compressor station. At the other facilities, excavating and insulation-laying operations are underway, and recultivation after laying and filling of the pipe is being done."

Work is going at a good rate on the line section of the gas pipelines at other sections. Since the beginning of construction (1981) almost R 150 million of capital investments of the R 200 million stipulated by the estimate have been assimilated on the third phase of the main gas pipeline. Over 300 km of underground gas trunkline have already been put into operation. Hydraulic testing is underway on these sections. The names of the best people are well known at the construction site. This is the section headed by M. F. Bizunov, the brigades of M. I. Il'chenko, P. I. Puk, the sections of V. N. Mertynov and V. Ye. Nechitaylo and the mechanized column of V. I. Petukhov.

9035
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PIPELINE CONSTRUCTION

REPORT GIVEN ON WORK OF UKRAINIAN GAS PIPELINE

Moscow IZVESTIYA in Russian 19 Sep 82 p 2

[Article by A. Titarenko, secretary of the Ukrainian Communist Party Central Committee: "According to the Law of Acceleration"]

[Text] In the Ukraine, the gas industry as a sector of the national economy began to develop after the Great Patriotic War. Intensification of geological exploration, equipping with equipment, reinforcement with cadres of specialists of the oil and gas industry, allocation of considerable capital resulted in the 1946 discovery of the large Ugerskiy gas field in the Lvov Oblast, and started the main gas pipeline Dashava-Kiev which was the most powerful for that time. It was extended to Bryansk, and then to Moscow.

In 1970 there were already 42 gas fields operating in the republic. For comprehensive and more effective development of the gas industry of the republic, a number of scientific-technical problems were resolved. The structure and organization of production control were improved. All of this made it possible to constantly increase gas extraction in the Ukrainian SSR, and 6 years ago it reached its maximum level, 68.7 billion m^3.

The Ukrainian SSR is a major gas-consuming region. The percentage of gas in the fuel balance exceeds 30 percent. We have practically no sector of industry that does not use gas. In all the large cities almost all the industrial enterprises have been switched to gas fuel.

Among the industrial consumers of gas, the ferrous metallurgy, chemistry, industry of construction materials, machine construction and metal processing have the greatest specific weight. In the metallurgical industry, natural gas is used in blast-furnace and steel-smelting production, the fabrication of finished rolled products and in enriching ore. Currently all the blast furnaces in the Ukraine operate on natural gas which guarantees a saving of coke and increases productivity of the furnaces by 3-5 percent.

Gas resources have created a reliable raw material base for the development of the chemical industry, production of artificial fiber, plastics, fertilizers and other materials needed to satify the needs of the population.

Natural gas has become the main type of fuel in machine construction where it is used instead of solid and liquid fuel. This makes it possible to improve the processes of combustion, reduce its specific consumption, use new technology and decrease the net cost of the product. All the plants of construction glass, more than half of the enterprises of container glass use natural gas as a fuel and this makes it possible to significantly improve the yield of glass from a square meter and decrease the specific consumption of fuel by 20-30 percent.

A major consumer of natural gas is power plants which are mainly used as buffers for burning its seasonal surpluses. In the future its consumption will increase for these purposes.

The use of natural gas has permitted the power engineers to considerably increase the technical-economic working indicators. The use of natural gas together with modern purification units in recent years alone has made it possible to almost cut in half the emissions of nitric oxides at thermal stations, and at individual stations to reduce to a minimum atmospheric pollution with sulfur gas, considerably reduce the harmful emissions at stations of Kiev, Dnepropetrovsk, and Krivoy Rog.

Gas is used in agriculture and the system of gas-air heating of greenhouses, poultry houses, pig sties, for heating dairy halls and other production rooms, in grain dryers of elevators, etc.

In the Ukraine for the first time in domestic practice, gas fields have begun to be opened by accelerated method, by combining the stages of their exploration and development. Especial attention is focused on increasing the unit output of wells, production lines, units of comprehensive gas preparation, diameter of the main gas pipelines, output of compressor stations which drastically decreased metal consumption, labor outlays and the area of land set apart.

Constant work is being done to improve the technical level and efficiency of production by broad introduction of the latest achievements of science and technology.

Because of the close cooperation with the institutions of the Ukrainian SSR Acadamy of Sciences, other scientific-research institutes in the sector, such technical solutions have been introduced as fire-less connection of outlets to main gas pipelines without stopping them, industrial repair of gas pumping units with the use of modern methods of welding developed by the Institute of Electric Arc Welding imeni Ye. O. Paton, use of nitrogen for intensification, development of gas wells and in repair of gas pipelines.

Now the gas transport system of our republic is inseparably linked to the unified system of gas supply of the country, and this has enormous advantages. In order to satisfy the increasing demands of the republic for gas, as well as to guarantee gas shipment for export, the largest gas pipeline Urengoy-Pomary-Uzhgorod will play an important role.

TheUkraine takes active participation in constructing the gas pipeline, starting from planning and ending with construction in the output of the necessary equipment. All the planning documents for the Ukrainian section are being prepared by the Kiev institutes All-Union Scientific Research and Planning Institute for Gas Transport and Soyuzgazproyekt under the supervision of the general designer, Donetsk Institute YUZHNIIgiprogaz. The specialists of Soyuzgazproyekt have fulfilled the planning-estimate documents for five conpressor stations ahead of schedule. The enterprises of the Donbass, Pridneprov'ye, Kiev, Kharkov, Lvov, Odessa and a whole number of others are shipping equipment, pipes, rolled metal, reinforced concrete items, shut-off fittings, cable products and many other materials for the gas pipeline.

Understanding the advantages from the construction of the main gas pipeline Urengoy-Pomary-Uzhgorod for the futher development of the republic's economy, the workers of the Ukraine are presistantly realizing the developed measures for acceleration of construction of the grand gas pipeline. This largest gas pipeline in addition to expanding the shipment of gas for export, will additionally gasify 20 cities and populated areas in the Ukrainian SSR alone. On the territory of the Kiev Oblast, for example, gas pipeline-outlets will be built to the cities of Boguslav, Mironovka, Tarashcha, Stavishche, Tetiyev.

The scientists of the institute of Electric Arc Welding imeni Ye. O. Paton of the Ukrainian SSR Acadamy of Sciences are effectivly supervising the development, introduction and improvement in contact welding which will permit a great increase in labor productivity, release a considerable number of workers involved in welding operations. The specialists of the Institute of Materials Technology of the Ukrainian SSR Acadamy of Sciences are actively participating with the collective of the association "Nevskiy Zavod" which is the initiator of competition for early shipment of gas pumping units for the main gas pipeline.

The Khartsyzsk pipe plant is shipping in full volume gas pipes of diameter 1420 mm for pressure of 75 atmospheres. A specialized shop has been put into operation for gas pipes with outer anticorrosion (polyethylene) and internal (epoxy) coatings. These pipes will promote a decrease in labor outlays and improvement in the quality of insulation. In this case there will be a 1.5-fold increase in the service life of the gas pipelines.

Modern resources of automation and remote control will be used on the route. Automated control includes collection and processing of regime-technical information on gas transport, monitoring the actual condition of the gas pipeline and its prediction, generation of optimal variants for controlling solutions and their transfer to the controllable objects.

With close cooperation with the Institute of Electric Arc Welding imeni Ye. O. Paton for construction of the gas pipeline, the complex "Styk" for automatic welding has been introduced and has successfully recommended itself. The unit of contact welding "Sever-1" developed by this same institute has been prepared for introduction. Welding four-post units UST-41 manufactured by the Kiev experimental-mechanical plant will be used. These units employ basically new valve generators of welding current.

All leading and new ideas from the arsenal of the country, and from the experience of the republic builders are widely used at the route of the gas pipeline. The trenches are dug with the help of powerful rotary excavators, insulation work is done by combines of domestic production. Units of horizontal drilling are operating to install junctions under roads and railroads. The main load-lifting mechanism at the construction is powerful pipe-layers.

Unanimously supporting the decision of the CPSU Central Committee and the USSR Council of Ministers for start-up of the gas pipeline in the fourth quarter of 1983, the collectives are multiplying their contribution to the most rapid completion of the construction. The Main Ukrainian Administration for Oil and Gas Construction, for example, decided to complete an almost 400-kilometer section of the gas pipeline ahead of schedule, by 7 November 1983.

Everything is impressive at the construction site of the grand trunkline. First of all it is the fact that it clearly reflects the fraternal friendship and mutual assistance of the people of our great motherland. In the very beginning of a 60-kilometer section in the Sumy Oblast, construction subdivisions are working from the Rostov administration Main Southern Administration for Pipeline Construction. The relay baton is taken from them by the builders of the Moscow administration Main Administration for Pipeline Construction. The builders of the Ukraine work next. They transfer the relay baton to the builders of the association Soyuzintergazstroy. Part of the line route 137 km from the compressor station "Gusyatinskaya" to the same station "Bogorodchanskiya" is being laid by the builders of the German Democratic Republic. Work in the mountains, between Bogorodchany and Uzhgorod is being done by builders of the Transcaucausus administration of pipeline construction which has accumulated rich experience of working under mountainous conditions. Precisely on this section, the gas pipeline passes through mountainous and forest locality, through rapid rivers.

On the shore of the mountain stream Lomnitsy, at the settlement of Yasen in the Ivano-Frankovsk Oblast, is one of the pipe-welding bases for the builders of the Urengoy-Pomary-Uzhgorod gas pipeline. The people here, like everywhere on the route, have settled in well.

In all five regions of the Ivano-Frankovsk Oblast on whose territory the gaspipeline route travels, wonderful facilities have also developed. Near the Transcarpathian settlement of Volovets, where the most western compressor station on the gas pipeline is being built, a secondary school, children's combine, hospital with polyclinic section and houses are being erected

It should be said that the local Soviets of People's Deputies are helping in every possible way the builders set up their daily life. Thus, in the city of Mironovka places have been set aside for housing with convenient access to the central road. The city has been created from a set of house trailers designed for the arrangement of 320 people. It also includes a cafeteria for 120 places store, club and other services need to guarantee a full set of housing, sanitary and cultural-general conditions for the workers and engineering-technical workers. The executive committees have allocated convenient places for the creation of other housing settlements.

The deputies are showing a lot of initiative in solving other questions. Transportation of children to schools and kindergartens has been organized. In the field cities of the builders, general workshops, baths, barber shops, libraries, athletic areas and evening schools are operating. Artistic collectives, movies and general services regularly come here.

The builders have armed themselves with the valuable initiative of the Sverdlov citizens and are working under the motto "Fewer Number of People for the Five-Year Plan Assignment of the Brigade." A lot of attention at the construction site is focused on the organization of competition on the principle "worker's relay race," conclusion of contracts for labor cooperation between the builders, planning organizations, enterprises-suppliers.

"Each Kilometer of Gas Pipeline Ahead of Schedule!" is the motto under which many builders of the trunkline are competing, supporting the initiative of the brigade of welders of the Transcaucasus administration of pipeline construction headed by R. Yemanidi. The purpose of the intensive brigade is specific, by the 60th anniversary of the formation of the USSR, ahead of schedule by 10 days, to complete all the basic work on 60 kilometers of the gas pipeline.

The shift assignments and increased commitments in honor of the 60th anniversary of the formation of the USSR are being fulfilled especially clearly among the builders of the Main Ukrainian Administration for Oil and Gas Construction by the collective of the comprehensive production line No 1, headed by V. Radchenko. The shift assignments and commitments for welding-intallation operations because of the effective use of the complex "Styk" are filled by 140-150 percent. The brigades of V. Kucheryaviy, M. Fedchenko machine operators of the excavators M. Petrov, N. Vetrik, V. Belogrivyy, bulldozer operator P. Pelik, P. Virich, S. Gavrilenko and many others are working intensively here.

Thorough engineering preparation for work is underway at all facilities of the construction site. The specialists of the Ukrainian SSR Ministry of Installation and special construction work, for example, has suggested an economical variant for organizing construction of compressor stations. Taking into consideration that the gas pipeline will pass in a zone of reach of the plants and mechanized sections available to the installers, it has been acknowledged that it is expedient to abandon the creation of traditional pioneer bases, and instead of this to fundamentally strengthen the existing bases of the installers.

Ukrainian SSR Council of Ministers and Ukrainian Republic Council of Trade Unions have adopted the decree "Measures to Guarantee Start-Up of Objects of the Main Gas Pipeline Urengoy-Pomary-Uzhgorod in the Ukrainian SSR." It defines the assignments to guarantee start-up in 1983 of its line section in compressor stations "Grebenkovskaya" and "Barskaya." A number of other measures aimed at accelerating construction of this important object have also been outlined.

The striving of the people to take personal participation in construction of the giant pipeline is great. Great concern of the party committees, soviet, trade union agencies, and economic leaders is to meet the workers of the route

well and with concern, to train, to give work to each that he likes, to involve in competition, and to develop a struggle for economical management of work. On the inititive of the party angencies for organization of active competition, monitoring the course of construction in the oblasts and rayons headquarters have been set up. Their main tasks is effective organization of socialist competition, including its most important trend, "worker's relay race" in which the construction organizations, customers, planning institutes, enterprises of transport, railroads, and seaports have begun to be active.

Socialist competition has unfolded at the construction of the gas pipeline among the collectives of construction, installation and specialized organizations for timely and high-quality fulfillment of the assignments for construction and start-up of its facilites on the territiory of the republic, as well as collectives of the enterprises and organizations who plan, manufacture and supply materials and equipment of this gas pipeline. Each quarter the results of this competition are summarized.

In order to reward the winners in the socialist competition among the collectives of construction, installation and specialized organizations who are building the line section of the gas pipeline and compressor stations, two challenge Red Banners of the Ukrainian SSR Council of Ministers and the Ukrainian Trade Union have been set up, with monetary first prizes R 5,000 each and second prizes of a thousand R each. It has been established that these challenge Red Banners after completion of construction are transferred for permanent storage to the building administrations which achieve the best results in guaranteeing the early start-up of the line section of the gas pipeline and the compressor stations. For the collectives of the enterprises and organizations who are manufacturing and supplying equipment and materials for the gas pipeline, as well as designing its objects, 5 diplomas of the Ukrainian SSR Council of Ministers and Ukrainian Trade Union have been instituted with monetary prizes of R 2,000 each.

The party organizations, ministries and departments of republic, executive committees of the local Soviets of People's Deputies, trade union, Komsomol and economic agencies are purposefully guaranteeing high efficiency of socialist competition in the organizations and at the enterprises associated with construction of the main gas pipeline Urengoy-Pomary-Uzhgorod.

I would like to note yet another detail. At the intensive construction site of the five-year plan, great cultural-patronage work is being conducted everywhere. In the cities of the builders, collectives of artistic amateur talent are arriving. Lecturers discuss the foreign and domestic policy of our party. Exhibits of the work of national skilled craftsmen are organized. The Transcarpathian section of the Union of Artists has decided to create an artistic manuscript of the construction site. Now at the Transcarpathian section of the gas pipeline, 25 painters are working. Graphic propaganda done by their hands is the subject of special pride of the builders.

The attention of the entire country has been riveted on the construction of the largest gas-transport systems where the intensive front of the five-year plan is now passing. It is a matter of honor for each collective, each worker involved in the great construction site to apply the maximum energy, forces,and professional skill in order to finish the main gas pipeline ahead of schedule.

9035
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PIPELINE CONSTRUCTION WORK SUMMARY ANALYZED

Moscow IZVESTIYA in Russian 18 Sep 82 p 2

[Article by B. L'vov: "From Urengoy to the Carpathians"]

[Text] There are 800 kilometers! These 3 laconic words are now being pronounced with special satisfaction in all the collectives of the Ministry of Construction of Oil and Gas Industry Enterprises which has been entrusted with laying one of the central transcontinental gas transport systems linking the Siberian polar region with the state boundary in the region of Uzhgorod. At first glance, this number seems modest. It is slightly more than one-sixth of the length of the export gas pipeline. However, it convincingly indicates the increased engineering maturity, organizational and technical advances of the builders of the main pipelines.

We will analyze the operational summary of the course of work on the Urengoy-Pomary-Uzhgorod route in the last 3 months. Whereas in June, a total of 75 kilometers were welded into a line, in July 186, and in August already 300. In September the welding rate was such that it made it possible to reach the level of 400 km. In 3 months the rates of insulation in laying of the pipeline had increased 10-fold.

The rates at other types of work are also high. In this case one should notice that only half of the total number of planned production lines have essentially been put into operation. There are all the real prerequisites for doubling the rates of work in the near future. It is remarkable that all that has been done has occurred not only in a few months, but also in parallel with another giant construction site which also starts in Urengoy and is directed to the Donbass. Here on the route Urengoy-Novopskov, the overwelming part of the trunkline extending over 3,100 km has been prepared for testing. There is no and there has not been any example in the practice of world pipeline construction in which 2 such large gas-transport arteries of large diameter (142 cm) with total length of almost 8,000 km have been built simultaneously.

If you could take one glance at the entire enormous construction area which extends from the center of gas extraction Urengoy which has become firmly implanted in the northern tundra to the Carpathians Mountains, a surprising picture would be presented. Roads are being built everywhere in the near-Carpathians, near Kursk, in Povolzhye and Priobye, in the urals and Pridneprovye, and clearings are being made in the forest. Now here, now there the sparks of welding flash, insulation, laying in the cut trench of the pipeline occurs and construction of compressor stations is developed.

Over 3,000 km of large-diameter pipes have already been obtained.

Generally, despite such obstacles, an enormous construction-insulation conveyer has been put into operation. With each day, with each hour its labor rhythm increases.

Near the Chuvash city of Tsivilsk, the production teams of the comprehensive line L. Mikhel'son from the trust "Kuybyshevtruboprovodstroy" have unfolded their welding-insulation scaffoldings and other route services. The horizon just begins to light up, and the builders are already on their feet, hurrying to their watch buses.

This comprehensive line on the route Urengoy-Novopskov shone with enviable skill. But it achieved even higher results on the Uzhgorod pipeline. Whereas an average of a kilometer was achieved by the line per day, today this indicator is often surpassed. In a few weeks of the 127 entrusted kilometers of the export route, more than half were welded into length, and over a third into a line. Dozens of kilometers of trunkline were insulated and laid.

High indicators! Especially if one takes into consideration that the line together with 3 other lines of the Main Administration of Pipeline Construction is a participant in the most interesting organizational-economic experiment. Four collectives, including not only production subdivisions with all headquarters without exception, including even the service personnel of the field housing cities, have begun to count on ready, completely finished product, welded, insulated, laid and filled kilometers of pipeline prepared for testing.

It has been decided to complete about 800 kilometers of route entrusted to the central board ahead of the planned periods by several months. The leading workers of competition keep their word: roughly half of all the completed volume of work on the export gas pipeline is in the account of the workers of the Main Administration of Pipeline Construction.

The builders of the Ukrainian section have taken up the labor call on the principle "worker's relay race". The route passes 1,146 kilometers, one-fourth of the trunkline on the territory of the UkSSR. Together with the subdivisions of the Main Ukrainian Administration for Oil and Gas Construction the collectives of the Main Southern Administration for Pipeline Construction, Main Administration of Pipeline Construction, and the Transcaucasus Administration of Pipeline Construction of Soyuzintergazstroy are performing the work. This last organization is especially famous for its ability to overcome mountain obstacles. This is why the Transcaucasus builders, the "mountain eagles" as they are called on the route, have been entrusted with making the transfer through the Carpathians.

"Our fellows were the first to start work on the route," relates the head of the Transcaucasus administration S. Kazinyan. "On 128 kilometers of mountainous relief they are faced with crossing 11 rapid rivers, numerous roads, swamps and forest. All of this is at an altitude of about 1.5 km. Nevertheless, by the 60th anniversary of the formation of the USSR, 10 days earlier than planned, it has been decided to complete work on the 60-kilometer section from Bogorodchan to the crossing over the river Svicha."

The leader of the "mountain eagles" is confident of his optimistic forecast. Each kilometer of the mountain route is being laid ahead of schedule. On the boards of indicators on "express telegrams" hung in the comfortable field city of the Transcaucasus workers, the names of the leading electric arcwelders R. Yemanidi, V. Rusinyak, G.Agasanyan, driver M. Kazaryan and many others are found almost every day. Each of them fulfills the weekly assignment generally in 4 days.

Preparatory work for crossing of the gas pipeline over the Dnieper has begun. In the lowland part of the river, almost a kilometer trench has already been dug, and welding of pipes is underway. Intensive socialist commitments have been adopted by the collectives of the trust "Ukrtruboprovodstroy" and Ukrzapadneftegazstroy."

"We, the workers and specialists," announced the leading workers of the competition, understand how important it is to start-up the gas pipeline ahead of schedule. Therefore we propose that all reserves be placed at our service, the period of construction of each section be reduced and the entire route entrusted to us be completed by the 66th anniversary of the the Great October."

Without waiting for the onset of the frost, the subdivisions of the Main Siberian Administration for Pipeline Construction and the Main Eastern Administration for Pipeline Construction are developing route work on swampy areas. Here the so-called "island" method is being used more often: on comparatively dry areas, all preparatory operations are done, and then as far as possible, the teams advance. This is precisely how the famous brigade of the USSR State Prize laureate B. Diduk is working.

The machine operators of the column of V. Madenov, crews of drivers of pipe-length carriers B. Rybalko and O. Baklenov are working with the same striving. Welding of pipes which arrived by the northern sea route is actively underway in the brigade of A. Kostyrev.

The headquarters which are acting together with the party, soviet, trade union and komsomol organizations of the rayons and oblasts where the trunkline is passing which have been created on the route as well as in the party committee of the ministry are fostering the mass nature of competition on the route from Urengoy to the Carpathians and its success.

The scope of socialist competition in honor of the 60th anniversary of formation of the USSR and the success of its leading workers which increases with each day is the real foundation for successful completion of work on the export trunkline in short periods.

9035
CSO: 1822/5

PIPELINE CONSTRUCTION

PIPELINE APPROACHES CARPATHIANS

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 22 Sep 82 p 1

[Article by G. Konstantinov: "At the Carpathian Crossings"]

[Text] In the environs of the regional center of Bogorodchany, the steel line of the export gas pipeline Urengoy-Uzhgorod has crossed the gas pipeline "Soyuz", the heavily traveled road Ivano-Frankovsk-Yaremcha and is approaching the forest slopes of the Carpathians. Just across the bridge over the Bystritsa, the pipe again appeared which was laid under the traveling part.

"We are faced with crossing 11 mountain rivers, 18 highways and railroads, many swamps, different pipelines and communications lines," relates the chief engineer of the Abovyan cost-accounting special section of the Transcaucasus administration of pipeline construction of the association "Soyuzintergazstroy" G. Grigor'yev. "One of the most difficult sections is the mountain ridges of L'vovshchina. For the first time the new underground gas river passes through separating ridges and the tops of mountains."

The first dozen kilometers of pipes have already been welded and laid. After overcoming the elevation, one of the best brigades which is headed by L. Timus' rose to the first top where the pipes are being welded. Having been included in the socialist competition under the motto "Each Kilometer of Gas Pipeline Ahead of Schedule!" the builders have considerably exceeded the schedule. One of the veterans of the Transcaucasus administration of pipeline construction R. Yemanidi says:

"We construct our calculations primarily on the fact that our collective is friendly and harmonious. Many electric welders have 20-25 years of work behind them on different routes. Among them are Petr Razuneyko, Anagoliy Bolyukh, Miron Kostev, and Yuriy Timofiychuk. Even now we are conserving as much time on welding each kilometer of pipe as needed for butt welding another 15 meters of gas pipeline. Here is another example: previously according to the technology, the field tests were done selectively with the help of radioactive isotopes. Now we check all the butt joints. Practice has indicated that it is better to spend another several hours on monitoring each seam than to redo the pipeline segment later."

The housing city of the builders is located in the mountain settlement of Yasen'. Nearby are the pipe welding bases where pipes of large diameter are connected into lengths on the semiautomatic rotating stand.

"Just recently it took 30 minutes to butt weld the pipes. Now this operation takes only 5-6 minutes," the senior engineer S. Avetikyan said in the interval. "The time for welding pipes has been cut almost in half. However this did not affect the quality. The fellows simply became more experienced, the auxiliary service and subcontractors are working well."

From morning to late night, the powerful pipe carriers are supplying lengths to the route. Sometimes it takes them several hours to reach the top of the mountain for they are using only forest roads. New ones are not laid in order to prevent damage to the vegetation in the mountains.

The highest point of the future blue artery in the Carpathians is the Magura Mountain. A fresh clearing approaches it already from two sides. The first production line on the side of Bogorodchan is being met by the brigades of builders from Uzhgorod. They are meeting not far from the mountain ski settlement of Slavskoye. At the same time another pipe-welding base and city of builders is developing here. These builders have to work on the summit ridges.

Having approved the patriotic initiative of the labor collectives of the country to start up the gas pipeline ahead of the planned schedule, the collective of the comprehensive production line No 1 of the Transcaucasus administration of pipeline construction has been obliged in honor of the 60th Anniversary of the Formation of the USSR to complete the main work on the segment of gas pipeline that crosses the Svicha River 10 days earlier.

9035
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PIPELINE CONSTRUCTION

ZAPADTRANSGAZ FULFILLS GAS TRANSPORT COMMITMENTS

Minsk SOVETSKAYA BELORUSSIYA in Russian 5 Sep 82 p 2

[Article by P. Liskevich, director of the west production association for transporting and supplying gas "Zapadtransgaz": "Sovereigns of the Gas Rivers"]

[Text] Today we are greeting with great warmth and cordiality those who bring to our houses, industrial enterprises the most convenient and inexpensive fuel, gas. "Flame without smoke" has long become our good assistant. It has firmly entered our daily life, founds glass, cuts metal, bakes cement and accelerates the obtaining of mineral fertilizer.

Hundreds of specialists of the gas trunklines, people who control the gas rivers are on guard of the precise and uninterrupted rhythm in the blue fuel supply. Our association guarantees its shipment to consumers of Belorussia, Lithuania and Latvia, and also supplies it for export to the European countries. The length of the underground arteries is over 4,000 km. On the territory of our republic, the main route of the gas pipeline Torzhok-Minsk-Ivatsevichi extends over 700 km. Natural gas of the Urengoy northern fields is supplied to 56 cities and 26 rural populated areas, including 23 cities and 12 populated areas and working settlements of our republic. This year construction has begin of the gas pipeline Minsk-Gomel, whose start-up will drastically increase the supply of natural gas to industrial and communal-general consumers of the oblast center. The cities and rural populated areas of the Minsk, Mogilev and Gomel Oblasts located along the gas pipeline route will also be gasified.

The gas-transport system of the association is constantly being developed. This year over R 80 million of capital investments should be assimilated at the facilities under construction, and about 500 km of gas pipeline, six compressor stations, objects of social-cultural and general purpose and auxiliary structures for the total cost of over R 130 million will be put into operation.

Our subcontracting construction organizations greet their professional holiday with good success. The trust "Bryansktruboprovodstroy," for example, was first among the construction collectives of the USSR Ministry of Construction of Oil and Gas Industry Enterprises to put into operation the section extending 77 kilometers at the erection of the third phase of the main gas pipeline Torzhok-Minsk-Ivatsevichi. The trust "Mosgazprovodstroy", "Ukrtruboprovodstroy" and "Ukrzapadneftegazstroy" are close to completing their objects.

A number of compressor stations on the same route of the gas pipeline are in the stage of completion, and the Minsk and Kobrinsk which are being erected by the trusts "Belenergostroy" and No 2 of the all-union association "Soyuzgazpromstroy" will be put into operation literally in a few days.

Having been included in the all-union socialist competition for early meeting of the 60th Anniversary of the USSR, the collectives of the production association "Zapadtransgaz" have achieved good results. They have been awarded the challenge red banner of the USSR Ministry of the Gas Industry and the central committee of the sector trade union three quarters in a row.

In 8 months, the plan for transporting gas has been fulfilled by 100.4 percent, the above-plan profit has been almost 1 million rubles. One of the urgent problems for our collective is economical and efficient use of oil and energy resources, since they are over half the net cost. The search for and actuating reserves made it possible for us to conserve over 27 million kW-h of electricity and over 13 T of aviation and turbine oil, and many other expensive materials since the beginning of this year.

The high power available per productive unit of industry, the use of new domestic and imported equipment requires constant improvement in qualification of the workers. Over 500 people improve it annually, and about 200 people mastered new occupations. All of this promotes expansion of the zones of servicing of the equipment, and plurality of professions. This factor alone made it possible to release over 100 people.

The collective of the association is proud of its best people and broadly disseminates the accumulated experience. Ten subdivisions bear the title "Enterprise of High Production Culture." Over 1200 shop workers of Communist labor are working in them. Four shops, 21 services, 12 shifts and 48 brigades have been awarded the title "Collective of Communist Labor." The machine operators of the production compressors S. I. Peshko from the Vilniyus mine-production administration of main gas pipelines and A. S. Yarotskiy from the Slonim, electric gas welder A. I. Shevyakov and head of the gas-compressor service from the Kobrinskiy administration have been acknowledged as the best in their profession in the system of the USSR Ministry of the Gas Industry.

The collective of the association is full of strength and decisiveness to cope with honor with the tasks of the plans set before them for the current five-year plan to provide the national economy with blue fuel and to supply it for export.

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BRIEFS

KOMSOMOL PIPELINE WORKERS--The gas pipeline passing through our oblast is the most important object. In response to the economic sanctions of Washington, the builders of the Krasnoturinsk gas-compressor station have adopted increased commitments. A call is being made for intensive teams which will build the gas pipeline. A total of 135 Komsomol passes have already been issued to our obkom, 155 students among the building teams have completed work during the summer for a half million rubles. How our builders are working is indicated by the following figure: at the construction of the Krasnoturinsk gas-compressor station, the monthly assignment has been overfulfilled by more than double. On the initiative of the Komsomol organization from the production association "Turbomotornyy zavod" 10 instead of 9 gas turbines have been fabricated. [Article by A. Krivyakov, secretary of the Sverdlovsk Komsomol Obkom] [Text] [Moscow KOMSOMOL'SKAYA PRAVDA in Russian 11 Aug 82 p 1] 9035

PIPELAYERS FOR PIPELINE--The length of steel pipes weighing over 12 tons can be laid in one pass in a trench by a self-propelled pipelayer whose industrial manufacture had been developed by the machine construction plant imeni B. Sardarov. The first above-plan batch of these units which were awarded the state sign of quality was sent ahead of schedule to the Tyumen Oblast to the builders of the Urengoy-Pomary-Uzhgorod gas pipeline. The pipe-layers are mounted on caterpillar tractors T-130 and can successfully operate when there are no roads. Increased power of the units makes it possible to lay large-diameter pipes. "All the orders of the builders of the gas pipeline Urengoy-Pomary-Uzhgorod will be fulfilled ahead of schedule." Thus the workers wrote in a resolution which was unanimously adopted at the general-plant meeting. They are keeping their word. Twenty-five-ton self-propelled cranes for installing heavy equipment at the stations for servicing the route have also been shipped ahead of schedule to the construction site of the gas pipeline. Comprehensive brigades made of experienced specialists are working on the manufacture of equipment for this trunkline of "blue fuel." The installation has been entrusted to the best machanics-installers. It has been decided to increase the manufacture of items for construction of the gas pipeline before the end of the year by almost one-third. [Text] [Baku VYSHKA in Russian 9 Sep 82 p 1] 9035

PIPELINE BRANCHES--The Novosineglazovskiy combine of construction parts in Chelyabinsk supplies a large part of its products for construction of the Urengoy-Uzhgorod gas pipeline. Socialist competition has developed here for early fulfillment of the orders of the intensive construction site. The ... figure shows the section for fabrication of branch pipes for the gas pipeline. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 19 Aug 82 p 1] 9035

UNDERGROUND PIPELINE--Omsk--The collective of the Omsk administration of Transiberian main pipelines is successfully realizing its commitments adopted in honor of the 60th anniversary of the formation of the USSR. The eight-month plan for pumping oil has been fulfilled by 100.9 percent. The administration is constructing new oil pipelines, points for oil filling, and is improving the technology of its pumping and filling. Measures are being taken to reduce losses and to save energy resources. Construction of the oil pipeline Pavlodar-Chimkent is going at full speed. A total of 1,470 km of this trunkline have already been constructed, including 660 km this year. On the 3 start-up pumping stations, R 3.7 million have been assimilated, and 750 km of high power transmission lines have been constructed. Several dozen radio-relay stations have been installed. It is also planned to introduce at the trunklines an automated system for controlling the technical process and remote control, and to build structures for separate supply of oil by grades. [Article by E. Chernyshev] [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Sep 82 p 1] 9035

NEW COMPRESSOR STATION--Kuybyshev--The powerful motors of the new, 22nd compressor station on the route of the gas pipeline Urengoy-Nizhnyaya Tura-Petrovsk have received near Tolyatti Siberian gas and have pushed it farther, to the new compressor stations which are being installed on the average of every 100 kilometers of the route. Completion of construction of the Tolyatti compressor station by trust "Kuybyshevtruboprovodstroy" considerably increased the throughput of the gas pipeline. Next to the new station, the builders and installers of the trust together with the brigades of the trusts "Gazmontazhavtomatika," "Glavneftegazelektrospetsstroy" and others are conducting construction operations at full speed at the compressor station "22-A" on the route of the Urengoy-Novopskov gas pipeline. [Article by A. Bochkarev] [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 19 Sep 82 p 2] 9035

FOREIGN SHIPMENTS CONTINUE--Contrary to the economic sanctions of the Reagan administration, equipment is arriving in our country from foreign firms who have concluded an agreement with the soviet organizations in the framework of the program "gas-pipes." The steamship of the Baltic shipping company "Stakhanovets Yermolenko" is at the pier of the second cargo region of the Leningrad trade port. It delivered from Glasgow to Leningrad 2,900 T of British equipment for the Tyumen gas pipeline. The Leningrad dockers prepared for reception of the cargo with especial thoroughness. The comprehensive brigade No 246 headed by V. P. Byzhletsov labored on the watch this day. It had a floating 100-ton crane with whose help, like a toy, the heavy-weight 55-ton blocks were transferred from the deck of the ship to the shore. [Article by D. Vladimirov] [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 19 Sep 82 p 2] 9035

CATERPILLAR PIPELAYER--Under complicated conditions of the north, many machines of mechanisms developed by the specialists of the Moscow special design office "Gazstroymashina" have recommended themselves excellently. At the experimental mechanical plant, series manufacture has been set up of several developments of the special design office. The picture shows a pipelayer with changed caterpillar tracks which will make it possible to considerably increase the stability of the machines and reduce their number in the pipelaying column. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Sep 82 p 2] 9035

GAS PUMPING UNITS--Leningrad--22 Sept--The communists of the association "Nevskiy Zavod" imeni V. I. Lenin adopted a program for accelerated series output and increase in the production of gas-pumping units of increased power for the main gas pipeline Urengoy-Pomary-Uzhgorod at the open party meeting which took place today. Member of the Politburo of the CPSU Central Committee, First Secretary of the Leningrad party obkom G. V. Romanov spoke. He gave to the machine builders the hopes of Comrade L. I. Brezhnev for friendly work, successful fulfillment of the tasks set by the party, and new achievements in accelerating scientific-technical progress. The collective of the association had decided to install on the test stand the first series unit GTN-25 ahead of schedule, by the 60th anniversary of the USSR. Increased commitments have been adopted for the 3rd year of the five-year plan. [Article by TASS correspondent] [Text] [Moscow SOTSIALTICHESKAYA INDUSTRIYA in Russian 24 Sep 82 p 2] 9035

PIPELINE TURBINES--Kazan'--The designers and machine builders of the Kazan motor-construction association have developed and have assembled on a conveyer the first gas-turbine motor for the main gas pipeline Urengoy-Uzhgorod. Whereas the many-kilometer pipe which connects the rich underground warehouses of the Tyumen Priobye with the consumers of blue raw material and fuel in the countries and cities of West Europe is comparable to a mighty artery, the motor for pumping the product many thousands of kilometers is the heart of the giant route. The heart must be strong, reliable and withstand great loads. This "heart" has been created for the pipeline by the motor builders of Tatariya who are famous for their high skill, ability to assemble reliable motors for such airliners as the fast-wing airbus. A month and a half ago the collective was obliged to develop and to set-up in short periods the output of special turbines for the transcontinental trunkline. The basis was the motor of the passenger airplane Tu-154. The operating conditions of the motor on the airplane and in the machine hall of the surface gas-compressor station differ. But the experienced collective coped with honor with the difficult exam. For the motor which had used up its air standard, a special fitting was developed, power supply, the geometric shape of the working turbines was changed. It took 1.5 months to develop drawings, produce new parts and to assemble the first machine. The gas-turbine motor for the pipeline Urengoy-Uzhgorod has been created and put on the conveyer. At a large meeting at which the machine builders launched their brainchild, a commitment was adopted that before the end of the year they would supply to the route of the trunkline Urengoy-Uzhgorod 16 gas-turbine motors, and in the first quarter of 1983 will manufacture yet another 24 of these units which are capable of pushing gas under great pressure many hundreds and thousands of kilometers. [Article by M. Zaripov] [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 24 Aug 82 p 1] 9035

PIPELINE MOTOR--Kazan, 23 Aug--The first motor has been assembled for the main gas pipeline Urengoy-Pomary-Uzhgorod. Today a certificate was signed in the Kazan motor-construction association for its putting into operation. Production has been set up in short schedules. [Text] [Ashkhabad TURKMENSKAYA ISKRA in Russian 24 Aug 82 p 1] 9035

RIVER CROSSING--The collective of the trust "Tatnefteprovodstroy" is faced with laying 214.5 kilometers of the unique gas route. Together with the specialists of the Kazan administration of underwater-engineering operations, they are faced with a forced crossing of 15 water obstacles including the Volga and the Vyatka. The picture shows a section of the construction. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 2 Sep 82 p 1] 9035

CARPATHIAN PIPELINE--The first kilometers of the pipes have been laid on the Carpathian section of the Urengoy-Pomary-Uzhgorod gas pipeline. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 38, Sep 82 p 3] 9035

PUMPING STATION--The pumping station has been put into operation on the route of the oil pipeline Usa-Uhkhta-Yaroslavl' in the Vologod Oblast. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 38, Sep 82 p 3] 9035

WATER OBSTACLES--Two lines of the export gas pipeline Urengoy-Uzhgorod, and 4 gas pipelines Urengoy-center of the country and another two reserve lines cross one of the largest water obstacles, the Kama. The builders of the Sarapulskiy section of the 6th Leningrad specialized administration for underwater-engineering work have completed laying on the bottom of the river the first inverted siphon of the gas pipeline. The 620-meter steel length weighing over 1200 T has been extended across the river in 20 working hours. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 38, Sep 82 p 3] 9035

CSO: 1822/5

FINNISH PRESS: FINNS TO BUILD PIPELINE COMPRESSOR STATIONS

Helsinki HELSINGIN SANOMAT in Finnish 23 Oct 82 p 11

[Text] The Finns will be supplying seven new compressor-station buildings with their equipment for the Siberian pipeline. In connection with this, the cooperative, METEX [expansion unknown], has entered into an agreement with the Soviet company, Mashinoimport, worth almost 75 million marks.

The agreement is an extension of an agreement to supply over 300 buildings for 41 compressor stations which METEX entered into a year ago. The new compressor-station buildings will be supplied for the second line to be built alongside the existing gas pipeline, which is already in the installation phase.

"Differing from earlier structures, the turbocompressor buildings are being designed for Soviet-made 25-Mw gas turbines," they told us at METEX.

The urgent planning operation has already been set in motion in Finland. The buildings themselves will be shipped to the Soviet Union by next fall. The shipment will provide additional work for several tens of suppliers in different parts of Finland.

The firms participating in the shipment are the same as in the previous sale: Kone Oy [Machine Company], Ollin Metalli [Olli Metalworks], Kone's crane factory, Suomen Puhallintehdas [Finnish Blower Works], Are, Hana and Naaraharju Oy, and Marksteel with its subcontractors.

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CSO: 3617/14

RELATED EQUIPMENT

METALLURGICAL PLANT PRODUCES PIPELINE EQUIPMENT

Kiev RABOCHAYA GAZETA in Russian 11 Sep 82 p 1

[Article by A. Solonskiy, RABOCHAYA GAZETA correspondent: "For the Underwater Route"]

[Text] The collective of the Dnepropetrovsk plant of metallurgical equipment is fulfilling the orders of the Urengoy-Uzhgorod gas pipeline on an intensive schedule.

Today Fedor Grigor'yevich has new concerns, but he approaches here each time, searches with his eyes Anatoliy Zhuravl' and with a nod of his head asks: "How are things?"

The other raises his thumb from a distance:

"Normal!"

It is apparent from everything that this is a new section for it is far from comfortable. On the other hand enthusiasm reigns which is given to the brigade by Fedor Grigor'yevich Popugay. The metal is poured into the molds and now the crane siezes the hot castings, and places the arch-shaped items on a special cart. These are the half-weights for the gas pipeline. The route of blue fuel, as it is known, lies not only on land, but also on rivers, lakes and swamps. A pair of half weights weighs over 2 tons. They encompass the pipe. These pig-iron "neckties" reliably hold it on the bottom.

This product is not characteristic for the Dnepropetrovsk plant of metallurgical equipment. Here they manufacture feed apparatus for blast furnaces, tubings for subways. They can be found at all underground railroad trunklines of the country. In many countries of the world the Dnepropetrovsk hot blowing valves, car-tipping devices, carts for ingot molds and other metallurgical equipment are operating. The cooling plates are bought by the firms of Belgium, Italy and France. Thus the brand of the enterprises, as we see, are fairly well known.

The new order was met in the collective without fear, with enthusiasm. The workers of the pig-iron casting shop assembled for this reason for a short meeting. The representatives of other shops, molders and machine operators came to it.

"We are faced with preparing the first batch of half weights, 3500 T in 6 months," said the head of the shop Leonid Barabash. "But this is an all-union intensive construction site, Comrades! Our schedule must correspond to it."

Then the molder Gagirin, a master of his work, a Communist, member of the oblast party committee began to speak. Nikolay Grigor'yevich recalled the attempts of the American administration to interrupt construction of the Siberian-West Europe gas pipeline. He ended with the words:

"We will do our work!"

The molders rapidly fulfilled their work. Soon 20 sets of molds were ready, metal forms for casting the half weights. It was necessary to reequip the electric crane for the casting shop and to prepare the cart for the new regime. Here the brigade of repairmen of the veteran of the Great Patriotic War P. O. Plekhanov worked. Mastery of the output of the new product was trusted to the brigade of the bearer of the Order of the Red Banner of Labor F. G. Popugay. At the just created section, a party post for monitoring the fulfillment of the honorable order was set up. It was headed by Gagirin.

Work was in full swing. The mold technology, an innovation for the plant was not adopted by everyone immediately. The party post sounded the alarm: A shortage of crane workers was interrupting the rates! At the appeal of the party committee, the engineer-designer L. Novokshonov, time keeper Ye. Tatsyul', N. Voronenko and others temporarily became crane operators.

The important task was fulfilled by the casters 3.5 months ahead of schedule. New serious assignments awaited the brigade of Popugay. The experienced foremen of the flame department gave the relay baton to the newly created brigades of A. Zhuravel' and V. Kovalev. The young collectives successfully mastered the new work.

"The plant has received an additional order, to prepare another 1,500 T of half weights," relates the brigade foreman Zhuravel'. "Starting with the new year we will cast items of large diameter. In a pair they will weigh over 4 tons. Suitable 'neckties' for Reagan's sanctions!"

Instead of a commentary on the words of the worker, we will present some reports from foreign newspapers.

The Japanese MAYNITI: The sanction of the American administration in relationship to the USSR because of construction of the Siberian-West Europe gas pipeline has met with sharp protest in the West European countries and has resulted in a further intensification of contradictions in the allied interrelationships between the United States and West Europe.

The British TIMES: The effect of the sanctions may prove to be no less painful for the United States itself.

The American BALTIMORE SUN: The June decision of the administration to expand discriminatory measures in relationship to the USSR aimed at interrupting construction of the Siberian-West Europe gas pipeline will cost American business a loss of $ 1.6 billion.

And this is what PRAVDA writes: Work on the export gas pipeline Urengoy-Pomary-Uzhgorod is expanding even more. The CPSU Central Committee of the USSR Council of Ministers have approved the patriotic initiative of the labor collectives who have given their word to start-up ahead of schedule all the gas pipelines, including the export. Gas shipments for export will be made in accordance with the concluded contract, that is starting in January 1984.

We will do our work!

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CSO: 1822/9

END